



Anytown USA Oak Meadow Circle Incident

October 24, 2016

To

December 2016

Background on property

- Father was former chemist (now deceased).
- Elder brother was a chemist (new deceased).
- Both “collected” old chemicals since 1950’s
- Intent to start an analytical lab business.
- 2014 property sold to developer.
- Subdivided into several residential lots.
- Original house and shed scheduled for demo.
- Local permits applied for by developer.
- Demo of main house scheduled for end of Oct.

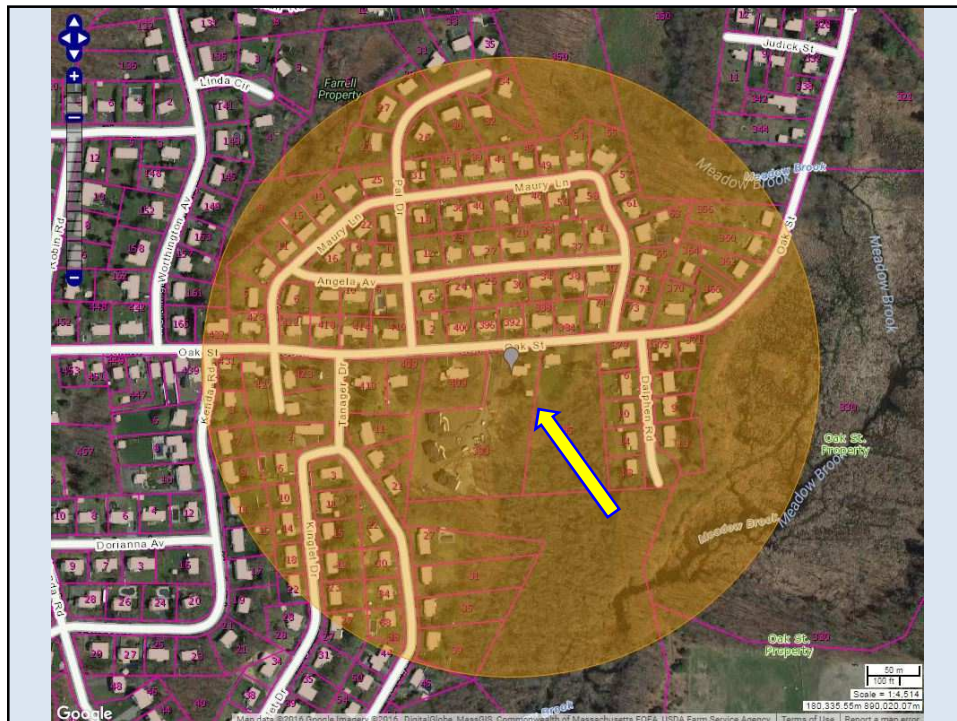
Timeline – Part 1

- **Sat 10/22/16**
 - Demolition of house
 - **Mon 10/24/16**
 - Demolition of shed/barn
 - **Spontaneous ignition** of shed/barn during demolition.
 - Neighbor contacts local board of health due to odor/ respiratory concerns
 - Two demo workers concerned about odor/respiratory concerns
 - **Tues 10/25/16**
 - MassDFS HazMat Tier 1 Response #1
 - MassDEP ER Response #1
 - Deputy Fire Chief orders dumpsters back to property
 - Developer initially contracts with cleanup contractor (NEDT) and Licensed Site Professional (CMG)
- **An then.....**



Timeline – Part 2

- **Response Part 2**
 - MassDFS HazMat Tier 1 Response #2 & MassDEP ER Response #2
 - Discovery of radiation label in dumpster
 - Detection of radiation levels on responder boots
 - Time Out!
- **Wed 10/26/16**
 - Multi-agency response
 - Screening of demo dumpster and responder equipment for rad
 - Confirmation of false positive. Rad removed as issue.
 - Ongoing surface soil pickup of lab chemical containers
 - Completion of demo dumpster emptying, segregating etc.
- **Thurs 10/27/16**
 - Beginning exploration of cellar hole with excavator
 - Ongoing recovery of lab chemical containers
 - Likely contaminated soils transferred to tight roll-offs
- **Friday 10/28/16**
 - Continuation of soil screening and containment



Project Priorities

- Assemble technical support team
- Air sampling
- Radiation issue
- Control site access
- Address immediately accessible chemical containers
- Address demo roll-off
- Screen recovered chemical containers
- Begin shallow subsurface exploration
- “Special” Issue

Response Team

- Anytown Fire
- Anytown Police
- Anytown Health
- Anytown Town Manager / Public Affairs
- Mass Dept. of Fire Services - HazMat Team
- Mass State Police - Bomb Squad
- Mass Dept. of Public Health - Radiation Control Program
- Mass Dept. of Environmental Protection - Emergency Response
- EPA - Emergency Response & START
- New England Disposal Technology
- OSHA

Radiation Issue

- Discovery of radiation placard in demo roll-off.
- Detection of 90 cpm in roll off
- Detect 300 cpm on responder boots.
- Shut down operations pending DPH NIAT.
- Readings determined to be false positive.

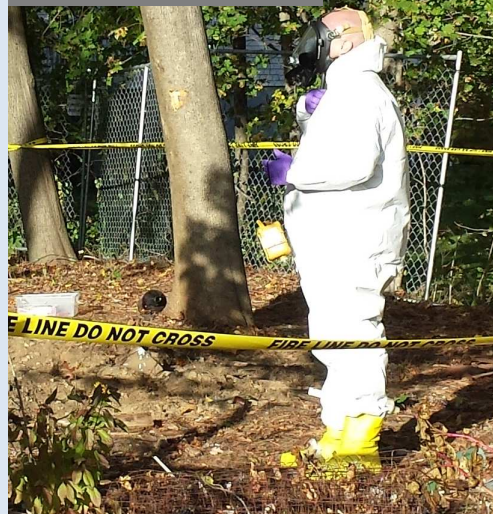


Air Monitoring

Fixed Monitoring



Mobile Monitoring

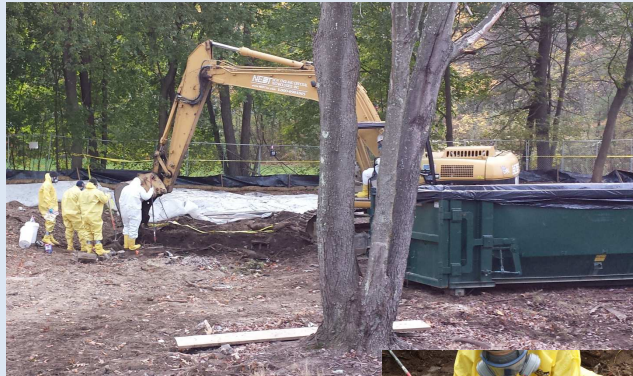


Site Control



- 6' chain link
- Posted warning signs
- Police detail off hours
- Light tower
- Collected materials in drums.

Subsurface Investigation & Scarifying



- Surficial excavation and exploration.
- Approval up to 600 cu yards.
- Chemical containers coming up.

Characterization



- Logistics of handling 500+ unknown chemicals.
- Chemical classifying for DOT transport and disposal.
- Secured on site in drums.



Special Issues

First wooden box piece



- "High Explosive Danger"
- MassSP Bomb Squad identify it as typical 1950's crate.

- Pieces of another box
- Detonator/initiator found close by.
- Bomb squad consult.

More box pieces and detonator



Special Issues

Tight paper wraps

White crystal material



Wooden box pieces

Special Issues

Tpr. Admiral

Tpr. Bob McCarthy



Confirmed to be dynamite by "Lab" test

Special Issues



1,4 bis(trimethylsilyl)1,3 butadiyne	Galactose (0/0/0/-)	potassium hydroxide (3/0/1/Cor)
1,5 diphenyl carbazide	gallium III Sulfate (0/1/0/-)	potassium nitrate (2/0/3/Ox)
1-4 diphenyl carbazide	Hexamethylenetetramine	potassium sulfate (1/0/0/-)
2, 4 dinitrophenol (4/3/3/-)	hydrofluoric acid (4/0/1/-)	pyridine trifluoroacetate
2-napthol (2/0/0/-)	hydroquinoline	Resorcinol (3/1/0/-)
4, nitrobenzylbromide	hydroxylamine hydrochloride	silicon dioxide (2/2/0/-)
alpha lactose monohydrate	isobornyl thiocyanate	sodium benzoate
aluminum ammonium sulfate	Lead II Nitrate (3/0/3/Ox)	sodium bicarbonate (1/0/0/-)
aluminum potassium decahydrate	Lead II oxide (2/1/1/-)	Sodium carbonate decahydrate
aminophenyl sulphone	Lead nitrate (3/0/3/Ox)	sodium carbonate monohydrate (1/0/0/-)
ammonium cobalt II sulfate hexahydrate	Lead oxide	sodium chromate (3/0/1/Ox)
ammonium cobalt sulfate / potassium	Lithium carbonate	sodium chromate tetrahydrate
sulfate mixture	mercury acetate (3/0/0/-)	Sodium cyanide (3/0/3/-)
ammonium hydrogen citrate	mercury - elemental (3/0/0/-)	sodium oxalate
ammonium hydrogenate	mercury II Chloride (4/0/0/-)	sodium sulfite (3/0/0/-)
Ammonium hydroxide (3/1/0/-)	mercury II oxide	sodium thiosulfate pentahydrate (2/0/0/-)
arsenic (III) oxide (3/0/1/-)	methyl orange	sodium tungstate dihydrate (2/0/0/-)
barium sulfate (2/0/0/-)	mineral spirits	soybean oil (0/1/0/-)
beryllium sulfate tetrahydrate (3/0/0/-)	naphthalene	Strontium nitrate (2/0/2/Ox)
boric acid (2/0/0/-)	nitrobenzene (3/2/0/-)	Sulfanilic acid (2/0/0/-)
boron tribromide (4/0/3/-)	n-methylanthranilic acid	sulfur powder (2/2/0/-)
calcium sulfate dihydrate (0/0/0/-)	oxalic acid (3/1/0/-)	sulfur powder / phosphorous
carbon tetrachloride (3/0/0/-)	oxalic acid dihydrate (3/1/2/-)	pentabromide (2/2/0/-)
cesium nitrate (2/1/2/Ox)	phenyl hydrazine (2/0/2/-)	Tantalum (V) Methoxide
dynamite (1/4/?/?)	phenyl-1,2 ethanediol	Trichloroethane (3/1/0/-)
ethyl alcohol (1/3/0/-)	phosphorous, white	
	Phosphoric acid (3/0/0/-)	
	Picric acid (2/0/2/-) special	
	piperonal	
	Polyethylene	
	Potassium carbonate (2/0/1/-)	

Response Summary

- 1,000+ lab containers recovered
 - 500+ with contents
 - 100+ First Defender/ identifiable
 - 100+ general classification identifiable
- 4 State Police Bomb Squad "Render Safe"
- 32 roll-offs (20 yd) removed as of 25 Nov. 2016
- Est. end of emergency phase as of 30 Nov 2016
- Transition meeting with locals 1 Dec. 2016
- Est. MassDEP Cost = \$250,000

What worked

- **Early Detection / Early Recognition**
 - Calling in the cavalry
- **Common Operating Picture**
 - Playing to the skills and abilities
- **Public Information**
 - Local lead
 - Use of Code Red, local Dept. briefings, and Info night at FD.
 - Local presence 24/7
- **Scene Security** (just before halloween)
 - Fence, light tower, Police detail
- **Weather**
 - One rainy day
- **Pre existing working relationships**

Questions